

## Student Learning Outcomes

### MATH-2009

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#### Five College Learning Outcomes:

**1. Written, Oral and Visual Communication:** *Communicate effectively in writing, orally and/or visually using traditional and/or modern information resources and supporting technology.*

**2. Scientific and Quantitative Reasoning:** *Locate, identify, collect, and organize data in order to then analyze, interpret or evaluate it using mathematical skills and/or the scientific method.*

**3. Critical Thinking:** *Differentiate between facts, influences, opinions, and assumptions to reach reasoned and supportable conclusions.*

**4. Problem Solving:** *Recognize and identify the components of a problem or issue, look at it from multiple perspectives and investigate ways to resolve it.*

**5. Information Literacy:** *Formulate strategies to locate, evaluate and apply information from a variety of sources - print and/or electronic.*

#### I. Degrees and Certificates

##### 1. What degrees and certificates does your discipline offer?

We offer an A.A. in Mathematics.

##### 2. Keeping in mind the five College Learning Outcomes above as well as what your discipline specifically requires of your graduating students, what should students be able to do when they have completed your discipline's requirements for each degree or certificate?

Upon completion of the discipline's requirements students will be able to

**1.** Communicate effectively in writing, orally and/or visually using traditional and/or modern information resources and supporting technology.

**2.** Locate, identify, collect, and organize data in order to then analyze, interpret or evaluate it using mathematical skills and/or the scientific method.

**3.** Differentiate between facts, influences, opinions, and assumptions to reach reasoned and supportable conclusions.

**4.** Recognize and identify the components of a problem or issue, look at it from multiple perspectives and investigate ways to resolve it.

**5.** Formulate strategies to locate, evaluate and apply information from a variety of sources - print and/or electronic.

##### 3. How do students in your program demonstrate that they meet each of the college-wide learning outcomes? What courses, activities, and/or projects are students required to complete that relate to each outcome?

###### i. Written, Oral and Visual Communication

The students submit homework assignments, examinations and projects that demonstrate their ability to communicate in written, oral and visual form efficiently and effectively.

###### ii. Scientific and Quantitative Reasoning

The students participate in activities, submit homework, and take exams to demonstrate the achieved mastery of scientific and quantitative reasoning.

###### iii. Critical Thinking

The students participate in activities, submit homework, and take exams to demonstrate the achieved mastery of critical thinking.

**iv. Problem Solving**

The students participate in activities, submit homework, and take exams to demonstrate the achieved mastery of efficient problem-solving methods.

**v. Information Literacy**

The students participate in activities, submit homework, and take exams to demonstrate the achieved mastery of processing quantitative and qualitative information presented in oral, written, visual forms.

**II. General Education:****1. Does your discipline offer any classes which count for general education requirements?**

None

**2. Which General Education courses in your discipline address the each of the five College Learning Outcomes? Please list courses for each of the following:****i. Written, Oral and Visual Communication**

See the corresponding section under SLO Certificates and Degrees.

**ii. Scientific and Quantitative Reasoning**

See the corresponding section under SLO Certificates and Degrees.

**iii. Critical Thinking**

See the corresponding section under SLO Certificates and Degrees.

**iv. Problem Solving**

See the corresponding section under SLO Certificates and Degrees.

**v. Information Literacy**

See the corresponding section under SLO Certificates and Degrees.

**III. Course Level Outcomes:****1. Do all of your Course Outlines of Record include Student Learning Outcomes? If not, are you revising them?**

Some of the course outlines already include the SLOs, the rest are being revised.

**2. What percentage of faculty members in your discipline include SLOs in their course syllabi?**

Approximately 95-100%.

**3. Assessment:****i. How often do you assess these SLOs?**

Once a semester.

**3. Assessment:****ii. In the last two years every discipline developed SLOs specifically related to College Learning Outcome #3: Critical Thinking. Have you assessed this or any of the stated Student Learning Outcomes in your course outlines over the last year? If so, please summarize the results.**

We have developed, as a department, SLOs for every course. The SLOs topic is on the agenda of every department meeting where SLOs are discussed and analyzed.

**3. Assessment:****iii. What improvements have you made or do you plan to make in the future?**

We have refined the SLOs to better reflect the desired outcomes for each course.

**3. Assessment:****iv. What do you plan to assess this year? Who will you assess? How will you assess?**

The SLO for every course is assessed each semester without exceptions. We are assessing our students by examining their mastery of Mathematics.